

We claim:

1. An anti-rotation device for a pipe and a connector to restrain relative rotational movement of a pipe and a connector, the connector having a connector housing provided with a connecting portion for a mating member to be joined with the pipe on one axial side thereof, the pipe including an inserting side portion of straight tubular shape inserted in and connected to the connector housing through an opening of an opposite axial end thereof, comprising;

a pipe connecting portion to be connected to the inserting side portion of the pipe in anti-rotating relation, and

a connector connecting portion to be connected to the connector in anti-rotating relation, the connector connecting portion being constructed on or constructed integrally with the pipe connecting portion.

2. The anti-rotation device for a pipe and a connector as set forth in claim 1 wherein the pipe connecting portion is connected to the inserting side portion of the pipe while clipping the inserting side portion non-rotatably.

3. The anti-rotation device as set forth in claim 2 wherein the pipe connecting portion is formed in C-shape or C-shape in cross-section and is configured to be pressed against an inner surface of an opposite axial end portion of the connector housing so as to be narrowed in diameter on insertion through the opening of an opposite axial end in an opposite axial end portion of the connector housing, and thereby to be connected to the inserting side portion while clipping the inserting side portion of the pipe non-rotatably.

4. The anti-rotation device as set forth in claim 2, further comprising;

an elastic material layer to be formed between the pipe connecting portion and the inserting side portion of the pipe.

5. The anti-rotation device for a pipe and a connector as set forth in claim 2 wherein the pipe connecting portion includes a spring member of C-shape or C-shape in cross section, to be mounted to the inserting side portion of the pipe while clipping the inserting side portion non-rotatably and a spring engageable portion to be engaged with the spring member non-rotatably.

6. The anti-rotation device for a pipe and a connector as set forth in claim 2

wherein the pipe connecting portion is formed in C-shape or C-shape in cross section, and knurls are formed in an inner surface of the pipe connecting portion and the outer surface of the inserting side portion of the pipe for a proper circumferential range.

5 7. The anti-rotation device for a pipe and a connector as set forth in claim 6 wherein the knurls are formed so as to extend in an axial direction.

8. The anti-rotation device for a pipe and a connector as set forth in claim 1 wherein the pipe connecting portion is formed into a pipe cap portion to be fitted on the inserting side portion of the pipe extending from an opening of an opposite axial end of the connector housing in an opposite axial direction and thereby to be
10 connected to the inserting side portion in anti-rotating relation, and the connector connecting portion is formed into a connector cap portion to be fitted on the connector housing (181) and thereby to be connected to the connector in anti-rotating relation.

9. The anti-rotation device for a pipe and a connector as set forth in claim 8 wherein the pipe cap portion is connected to the inserting side portion of the pipe in
15 anti-rotating relation by engagement circumferentially with a stay provided on the pipe so as to project outwardly.

10. The anti-rotation device for a pipe and a connector as set forth in claim 8 wherein under incomplete insertion of the pipe into the connector housing, the pipe cap portion is not allowed to fit on the inserting side portion of the pipe due to
20 interference with the pipe.

11. An anti-rotation device for a pipe and a connector to restrain relative rotational movement of a pipe and a connector, the connector having a connector housing provided with a connecting portion for a mating member to be joined with the pipe on one axial side thereof and a retainer holding portion holding a retainer on an
25 opposite axial side, the pipe including an inserting side portion of straight tubular shape inserted in and connected to the connector housing through an opening of an opposite axial end thereof, the inserting side portion of the pipe being connected to the connector housing by engagement with the retainer, the retainer being held by the retainer holding portion in engagement with an engagement window formed on the
30 retainer holding portion, comprising;

a pipe connecting portion to be connected to the inserting side portion of the pipe in anti-rotating relation, and

a connector connecting portion to be connected to the connector in anti-rotating relation by engagement non-rotatably with the engagement window of the retainer holding portion, the connector connecting portion being constructed on or constructed integrally with the pipe connecting portion.

5 12. An anti-rotation device for a pipe and a connector to restrain relative rotational movement of a pipe and a connector, the connector having a connector housing provided with a connecting portion for a mating member to be joined with a pipe on one axial side thereof and a retainer holding portion holding a retainer on an opposite axial side thereof, the pipe including an inserting side portion of straight
10 tubular shape inserted in and connected to the connector housing through an opening of an opposite axial end thereof, the inserting side portion of the pipe being connected to the connector housing by engagement with the retainer, the retainer being held by the retainer holding portion in engagement with an engagement window formed on the retainer holding portion, comprising;

15 a pipe connecting portion to be connected to the inserting side portion of the pipe in anti-rotating relation, and

a connector connecting portion to be connected to the connector in anti-rotating relation by engagement non-rotatably with the retainer, the connector connecting portion being constructed on or constructed integrally with the pipe connecting
20 portion.

 13. An anti-rotation structure for a pipe and a connector to restrain relative rotational movement of a pipe and a connector, the connector having a connector housing provided with a connecting portion for a mating member to be joined with the pipe on one axial side thereof, the pipe including an inserting side portion of straight
25 tubular shape inserted in and connected to the connector housing through an opening of an opposite axial end thereof, comprising;

an anti-rotation device for a pipe and a connector having a pipe connecting portion to be connected to the inserting side portion of the pipe in anti-rotating relation, and a connector connecting portion to be connected to the connector in anti-rotating
30 relation, the connector connecting portion being constructed on or constructed integrally with the pipe connecting portion.

14. The anti-rotation structure for a pipe and a connector as set forth in claim 13 wherein the connector connecting portion is connected to the connector in anti-rotating relation by engaging with a rotation preventive engagement protrusion or a rotation preventive engagement recess formed on or in the connector housing in non-rotatably.

15. An anti-rotation structure for a pipe and a connector to restrain relative rotational movement of a pipe and a connector, the connector having a connector housing provided with a connecting portion for a mating member to be joined with the pipe on one axial side thereof, the pipe including an inserting side portion of a straight tubular shape inserted in and connected to the connector housing through an opening of an opposite axial end thereof, comprising;

a rotation preventive slit formed in the connector housing, and

a stay formed on the inserting side portion of the pipe so as to project outwardly, and fitted in the rotation preventive slit in anti-rotating relation.